CHLAMYDIA

Clinical Features: Chlamydia is a sexually transmitted disease (STD) that is responsible for an increasing variety of clinical syndromes, many closely resembling infections caused by gonorrhea. Chlamydia is manifested by a broad spectrum of clinical features including asymptomatic and symptomatic local infections, local complicated infections, and systemic dissemination. Asymptomatic infections can occur at the urethra endocervix, rectum, and pharynx. Symptomatic infections can include urethritis [nongonococcal urethritis (NGU)], mucopurulent cervicitis (MPC), proctitis, pharyngitis, bartholinitis, and conjunctivitis. Local complications can include salpingitis, epididymitis, Bartholin's Glands abscess, lymphangitis, and prostatitis. Systemic dissemination can result in Reiter's syndrome.

Causative Agent: *Chlamydia trachomatis,* a gram-negative bacterium.

Mode of Transmission: Chlamydia can be spread from person to person via contact with exudate from infected mucous membranes through sexual activity. Infected pregnant women can infect their newborn children during childbirth.

Incubation Period: Due to the preponderance of asymptomatic chlamydia cases (80% in men and 50% in women), the incubation period is poorly defined. Symptoms will generally occur 7 to 21 days after infection in symptomatic individuals.

Period of Communicability: May extend for months in untreated individuals.

***Public Health Significance*:** Many STDs may be prevented through sexual abstinence or through correct, consistent use of condoms. Chlamydia is the leading cause of infertility among Kansas women — screening efforts focus on sexually active women age 24 and under. Chlamydia infection is associated with an increased risk of acquiring HIV.

Reportable Disease in Kansas Since: 1985

Laboratory Criteria for Surveillance Purposes

- Isolation of *C. trachomatis* by culture, ***OR***
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

Surveillance Case Definitions

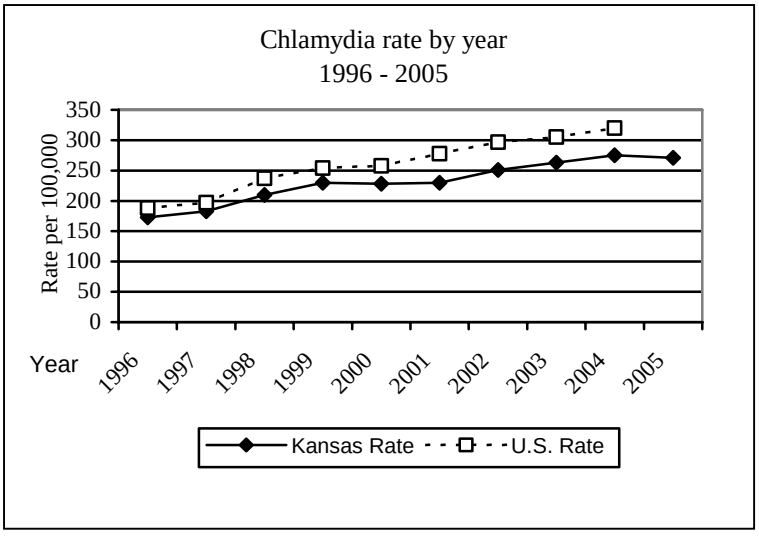
- *Confirmed:* case meets clinical criteria and is laboratory confirmed.

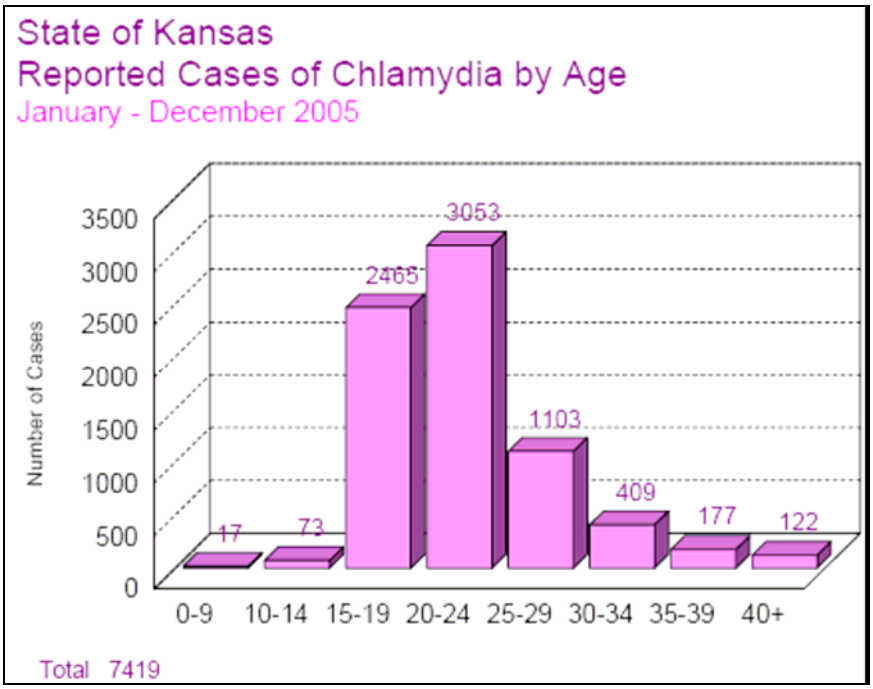
Epidemiology and Trends

2005 Kansas Count: 7419

	Rate per 100,000	*95% CI*
Kansas Rate	271	(268 - 281)
U.S. Rate (2004)	320	*NA*
Gender		
Male	99	(83 - 109)
Female	446	(439 - 463)
Race*		
White	111	(121 - 136)
Black	960	(1013 - 1215)
Asian/Pacific Islander	61	(0 - 342)
Native American	280	(0 - 1076)
Hispanic	312	(287 - 447)
Geographic area		
Urban County	337	(332 - 356)
Non-Urban County	203	(192 - 218)

**The STD program at KDHE designates "Hispanic" as a race category. As a result, analysis by Hispanic ethnicity is not presented.*





Chlamydia continues to be the most frequently reported STD in the state, with 86 of 105 counties reporting at least one case in calendar year (CY)2005. During CY2005, 30,216 tests were performed by the Division of Health and Environmental Laboratories (DHEL), Sedgwick and Wyandotte County laboratories, with 6.9 percent positive (2,077). These numbers represent an 11 percent decrease in screening and a 5 percent decrease in positives compared to CY2004.

There were 7,419 chlamydia infections reported in CY2005 which is a one percent (76 cases) decrease compared to CY2004. This represents the first decrease in total chlamydia cases since a one percent decrease in CY2000. Nineteen percent of reports were from public providers in the CY2005 compare to 20 percent in CY2004. The incidence of chlamydia infections in Kansas for CY2005 was 271/100,000.

Chlamydia infections continue to disproportionately affect females in their childbearing years. Forty-one percent (3,053 cases) of all reported cases in the CY2005 occurred in the 20-24 age group. This translated to a case rate of 1,419/100,000, closely followed by the 15-19 age group, which accounted for 33 percent (2,466 cases) of all reported infections and a case rate of 1,213/100,000. Combined, the 15-24 age group accounted for 74 percent (5,519 cases) of all chlamydia infections reported in CY2005. The 25-29 age group represented 15 percent (1,103 cases) of all cases and a case rate of 598/100,000 followed by the 30-34 age group with six percent (409 cases) and a case rate of 235/100,000. The 35-39 age group accounted for two percent (177) and a case rate of 100/100,000; all the other age groups had one percent or less of all the chlamydia cases reported in the CY2005.

Minorities continued to be disproportionately affected by chlamydia in CY2005. The case rate for Whites was 121/100,000 (2,734 cases). Among African-Americans, the case rate was

959/100,000 (1,663 cases). Hispanics, with no race elicited, had a case rate of 332/100,000 (688 cases), followed by Native Americans (276/100,000, 85 cases), and Asian/Pacific Islanders (63/100,000, 39 cases). No race was recorded for 2,211 cases (30 percent) reported in CY2005. Minorities may be disproportionately represented due to reporting bias (e.g., African-Americans may use public STD and Family Planning clinics more often for health care and be more likely to be screened and reported if positive). However, even when looking within screening sites, the positivity rates of chlamydia were higher among minorities than among whites.

Correspondingly, six counties that had the greatest non-White population distribution also had case rates in excess of the state mean rate of 271/100,000. All six counties are located in the eastern third of the state. Geary County, which hosts Fort Riley, reported the largest case rate in the state at 1,290/100,000. Wyandotte County, which includes Kansas City, had a case rate of 596/100,000, followed by Sedgwick County (Wichita) and Shawnee County (Topeka) with case rates of 415/100,000 and 387/100,000, respectively. Riley County (Manhattan), the home of Kansas State University, had a case rate of 387/100,000 and Douglas County (Lawrence), the home of Kansas University, had a case rate of 354/100,000.

Females accounted for 82 percent (6,054 cases) of the reported infections; however, this figure is skewed due to the focused screening efforts for women. Males accounted for 18 percent (1,365) of reported infections in CY2005. The female to male ratio was 4.4:1.

The current guidelines for chlamydia screening target:

- All females in prenatal and STD clinics
- All females 24 years of age and under in family planning clinics
- Females 25 to 29 years old in family planning clinics that have symptoms of a chlamydial infection, or have had sexual contact with an STD-positive male or a male with urethritis